

Title (en)
Integrated circuit comprising moisture sensor

Title (de)
Integrierte Schaltung mit Feuchtesensor

Title (fr)
Circuit intégré avec capteur d'humidité

Publication
EP 2282333 A1 20110209 (EN)

Application
EP 09166518 A 20090727

Priority
EP 09166518 A 20090727

Abstract (en)
Disclosed is an integrated circuit (IC) comprising a substrate (10) including a plurality of circuit elements and a metallization stack (20) covering said substrate for providing interconnections between the circuit elements, wherein the top metallization layer of said stack carries a plurality of metal portions (30) embedded in an exposed porous material (40) for retaining a liquid, said porous material laterally separating said plurality of metal portions. An electronic device comprising such an IC and a method of manufacturing such an IC are also disclosed.

IPC 8 full level
G01N 27/22 (2006.01); **H01L 23/29** (2006.01); **H01L 23/31** (2006.01)

CPC (source: EP US)
H01L 23/291 (2013.01 - EP US); **H01L 23/3107** (2013.01 - EP US); **G01N 27/128** (2013.01 - EP US); **G01N 27/223** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US); **H01L 2924/19041** (2013.01 - EP US); **H01L 2924/3011** (2013.01 - EP US)

Citation (applicant)
• US 4057823 A 19771108 - BURKHARDT PAUL JOHANNES, et al
• US 2008191716 A1 20080814 - CHEN FEN [US], et al
• WO 2005095936 A1 20051013 - CUMMINS TIMOTHY [IE]
• US 2005194649 A1 20050908 - OKI TOMOHIRO [JP]
• J.J. BAO ET AL., PROC. OF THE IEEE INTL. INTERCONNECT TECHNOLOGY CONFERENCE, 2007, pages 147 - 149
• M.J. PARK, NANO LETTERS, vol. 11, 2007, pages 3547 - 3552
• A.H.D- GRAHAM, SENSORS AND ACTUATORS B, vol. 138, 2009, pages 296 - 303
• J.J. BAO, PROC. OF THE IEEE LNTL. INTERCONNECT TECHNOLOGY CONFERENCE, 2007, pages 147 - 149
• M.J. PARK, NANO LETTERS, vol. 11, 2007, pages 3547 - 3552
• A.H.D. GRAHAM, SENSORS AND ACTUATORS B, vol. 138, 2009, pages 296 - 303

Citation (search report)
• [XYI] US 2008191716 A1 20080814 - CHEN FEN [US], et al
• [XYI] WO 2005095936 A1 20051013 - CUMMINS TIMOTHY [IE]
• [XYI] US 2005194649 A1 20050908 - OKI TOMOHIRO [JP]
• [I] WO 2007057794 A1 20070524 - KONINKL PHILIPS ELECTRONICS NV [NL], et al
• [Y] JP H0794567 A 19950407 - MAZDA MOTOR
• [AD] GRAHAM A H D ET AL: "Formation of a porous alumina electrode as a low-cost CMOS neuronal interface", SENSORS AND ACTUATORS B, ELSEVIER SEQUOIA S.A., LAUSANNE, CH, vol. 138, no. 1, 24 April 2009 (2009-04-24), pages 296 - 303, XP026033842, ISSN: 0925-4005, [retrieved on 20090205]

Cited by
EP2492239A1; EP2527824A1; US9766195B2; US9284187B2; US9941222B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2282333 A1 20110209; EP 2282333 B1 20130320; US 2011018097 A1 20110127; US 8779548 B2 20140715

DOCDB simple family (application)
EP 09166518 A 20090727; US 84380910 A 20100726